

Notice of Allowability

Application No.

10/691,528

Applicant(s)

WILHELM ET AL.

Examiner

Kendra D. Carter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 22 August 2001.
2. ☒ The allowed claim(s) is/are 1-7 and 9, 10 and 12-19 (renumbered 1-7, 8, 9 and 10-17).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Monica Chin Kitts on October 26, 2007.

The application has been amended as follows:

1. In claim 1, line 9, after "such" delete "inhibition" and insert "treatment";
2. In claims 10, line 5, after "acceptable carrier" insert ", wherein said additional pharmacologically active substance is selected from the group consisting of radio labels or cytotoxic substances";
3. Cancel claim 11; and
4. In claim 12, line 1, after "claim" delete "11" and insert "10".

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

Applicant's amendments to the claims filed August 22, 2007 has been fully considered. In light of the Applicant's amendments and Examiner's amendments, claims 1-7 and 9, 10 and 12-19 are allowed and renumbered to claims 1-7, 8, 9 and 10-17.

In light of the terminal disclaimer filed August 22, 2007, both 35 U.S.C. 112, first paragraph rejections of claims 1-9 and 16-19 are withdrawn.

The following is an examiner's statement of reasons for allowance: The claims 1-7 and 9-19 are drawn to a method for treating a malignant tumor selected from the group consisting of urokinase associated breast cancer and lung foci resulting from metastases thereof, and urokinase associated pancreatic cancer and liver foci resulting from metastases thereof, comprising administering a composition comprising $N\alpha(2,4,6\text{-Triisopropylphenyl sulfonyl})\text{-3-amidino-(D,L)-phenylalanine-4-ethoxycarbonylpiperazide}$, the L enantiomer thereof or a pharmaceutically suitable salt thereof and a pharmaceutically acceptable carrier to a patient in need of such treatment. The closest art is Xing et al. (Cancer Research, 1997, 57, pp. 3585-3593) in view of the PENTAPHARM Product Catalog, 1998 or the PENTAPHARM Product Catalog 1997. Xing et al. teaches a method of preventing breast cancer growth, invasion and metastasis to lungs and lymph nodes using a urokinase inhibitor in a pharmaceutically

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acceptable carrier in combination with a cytotoxic substance (see page 3585, introduction; page 3589, first full paragraph; page 3586, third paragraph; and page 3685, materials and methods). Xing et al. does not teach the Applicant's compound. The PENTAPHARM Product Catalog of 1997 and 1998 teach the Applicant's compound as Pefabloc ® uPA and describes the compound as a low molecular weight synthetic inhibitor for urokinase (see page 23 of the 1997 catalog). The Applicant provided argument and Declarations by Foekens and Cohen that were persuasive to overcome the 35 U.S.C. 103(a) rejections. Particularly, the Towle et al. and Bridges et al. references given within the Declarations show that high selectivity of urokinase inhibitors was required in order to consider the inhibitors for therapeutic use. Additionally, Xing et al. teaches the desirability of providing selective inhibitors of urokinase and not relatively nonspecific inhibitors. On the other hand, the catalog discloses minimal selectivity (see the table on page 25 of the 1997 catalog.) Thus, one of ordinary skill in the art would not have been motivated to provide a non-selective inhibitor of urokinase in the treatment of tumors or metastasis, as such a non-selective inhibitor would be expected to result in undesirable side effects that would negate any desirable effects achieved by the urokinase inhibiting action.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably


accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kendra D. Carter whose telephone number is (571) 272-9034. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KDC



SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER